

Abstract:

The invention relates to a method for the *in vitro* production of intervertebral disk cartilage cell transplants from affected intervertebral disk tissue from patients and to the use thereof as transplantation material for the treatment of affected intervertebral disks. The invention also relates to a three-dimensional, vital, and mechanically stable intervertebral disk cartilage tissue and to the use thereof as transplantation material for the treatment of affected intervertebral disks and in testing active substances. Furthermore, the invention is directed to the surgical technique for incorporating the transplants, to the intervertebral disk cell transplants and intervertebral disk cartilage tissues produced, and to therapeutic formulations, e.g. injection solutions, which include said tissue and said cell transplants.